What is claimed:

1. A microwave radiation curable ink for piezo electric drop-on-demand inkjet printing, comprising:

a. molecules of material capable of undergoing a polymerization reaction under the influence of said microwave radiation generated heat;

b. a microwave radiation absorber, said absorber enhancing absorption of microwave radiation and conversion of said energy into heat;

c. a thermal initiator, said initiator being activated by heat generated by said microwave radiation energy;

d. a colorant, and

e. additives.

2. A microwave radiation curable ink for piezo electric drop-on-demand inkjet printing according to claim 1, and where said molecules of material capable of undergoing a polymerization reaction under the influence of said microwave radiation generated heat are any one or a combination of acrylic monomers and oligomers,

3. A microwave radiation curable ink for piezo electric drop-on-demand inkjet printing according to claim 1, and where said microwave radiation absorber is at least one of carbon black, minerals, polar molecules such as alcohols, amines, ammonium salts and conductive polymers.

4. A microwave radiation curable ink for piezo electric drop-on-demand inkjet printing according to claim 1, and where said thermal initiator is at least one of lauroyl peroxide, cumenn peroxide dicumyl peroxide, tert-amyl peroxy-benzoate, dentanedione-peroxide, 1,1'-azobis-cyclohexane carbonitryle.

5. A microwave radiation curable ink for piezo electric drop-on-demand inkjet printing according to claim 1 and where said additives are any one or a combination of wetting agents, dispersants, rheology modifiers, solvents, and defoamers.

6. A method of microwave radiation curing of ink for piezo drop-on-demand ink jet printing comprising steps of:

a. providing an ink, said ink having a microwave absorber and a thermal initiator, said absorber enhancing absorption of microwave radiation;

b. printing with said ink an image bearing pattern on a substrate; and

c. irradiating by microwave curing radiation said printed image bearing pattern,

wherein said image bearing pattern is cured by heat generated by application of said microwave curing radiation converted into heat within the ink layer.

7. A method of printing on optically reflective surfaces by piezo drop-on-demand ink jet printing comprising steps of:

a. providing an ink, said ink having a microwave absorber and a thermal initiator, said absorber enhancing absorption of microwave radiation;

b. printing with said ink an image bearing pattern on said optically reflecting substrate; and

c. irradiating by microwave curing radiation said printed image bearing pattern,

wherein said image bearing pattern is cured by heat generated by application of said microwave curing radiation converted into heat within the ink layer and said microwave radiation is not reflected by the substrate.

8. An ink jet ink composition comprising:

a. molecules capable of undergoing polymerization reaction under microwave radiation;

b. at least one colorant; and

c. Additives.

9. An ink jet ink according to claim 8, where said molecules capable of undergoing a polymerization reaction are monomers and oligomers containing acrylate groups.

10. An ink jet ink according to claim 8, where said additives are selected from a group of thermal initiators, microwave radiation absorbers, wetting agents, dispersants, rheology modifiers, solvents, and defoamers.

11. An ink jet ink according to claim 8, where said thermal initiators are selected from lauroyl peroxide, cumenn peroxide dicumyl peroxide, tert-amyl peroxy-benzoate, dentanedione-peroxide, 1,1'-azobis-cyclohexane carbonitryle.

12. An ink jet ink according to claim 8, where said microwave absorbers are selected from components capable of increasing the absorption of microwave radiation, said components being: carbon black, minerals, polar molecules such as alcohols, amines, ammonium salts and conductive polymers.